DESCRIPTION OF SOME NEW GENERA OF MOLLUSCA.

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THE following diagnoses of new genera are published in advance of a more extended paper on West Indian mollusca, now in process of preparation. The amount of material embodied in that paper is so great, that circumstances will not permit me to illustrate the numerous new species, and I avail myself of the present means of explaining, by figures, the generic descriptions, which are not always clearly intelligible from verbal descriptions.

PTEROPODA.

Fam. **LIMACINIDÆ.**

PLANORBELLA, Gabb, pl. 11, fig. 2.

Shell minute, vitreous, sinistral, apex sunken as in *Planorbis*.

This genus, from its sinistral character, is evidently allied to *Limacina*, from which its planorbiform mode of growth distinctly separates it. The type *P. imitans*, were it dextral, might be mistaken for a very young specimen of *Planorbis trivolvus*, so nearly does it copy the form of that shell.

GASTEROPODA.

MURICIDÆ.

METULELLA, Gabb, pl. 11, fig. 3.

Shell fusiform, canal more or less produced; inner lip covered with a thickened plate, continuous posteriorly with the outer lip. Interior of both inner and outer lips strongly denticulated or transversely striated. Surface cancellated or costate.

This genus is more distinctly fusiform than *Metula*, and has the additional character that the inner lip is covered throughout its length by a series of prominent denticles, *not* necessarily corresponding with the covered-up surface ribs.

Type *M. fusiformis*.

TURRIDÆ.

GLYPHOSTOMA, Gabb, pl. 11. fig. 4.

Shell like *Defrancia*, but with the inner lip strongly cranulated or transversely rugose.

This genus has the same relation to *Defrancia* that *Metulella* bears to *Metula*. The inner lip of *G. dentifera*, the only known species, is thickened, and is crossed by a number of prominences, intermediate in character between teeth and transverse folds. At the same time, they are wholly unlike the one fold of *Borsonia*, or the two or three of *Cordiera*. A better comparison would be with the teeth of *Cypræa*.

BUCCINIDÆ.

ECTRACHELIZA, Gabb, pl. 9. fig. 2.

Shell acuminately oblong, spire elevated (always truncated in the only species known). Surface compressed near the suture. Inner lip encrusted; columella sinuous, short; outer lip produced in advance. This genus seems to be allied in many of its characters to *Cominella* and *Truncaria*. Like them, it is compressed adjoining the suture. It shows no trace of umbilicus, as seen in most of the Buccinidæ, but its most distinctive character is in its obliquely sub-truncated columalla, which does not reach to the anterior end of the shell. It differs from *Truncaria* in having no fold on the columella and in the outer lip not being emarginate posteriorly. In *E. truncata*, the apex is truncated at all ages, shells of less than half an inch long having lost several of their apical whorls, and it is rare to find more than two entire volutions in any specimen.

OLIVIDÆ.

PLOCHELÆA, Gabb, pl. 11, fig. 5.

Shell olive shaped, suture nearly obsolete, as in *Ancillaria;* aperture linear, deeply and obliquely notched at the base, as in *Dibaphus*. Outer lip thickened internally, in the middle; inner lip incrusted and having several transverse folds, of which the upper are the smallest; columnella strongly recurved at the base.

From its form and general appearance, I am inclined to consider this genus as belonging to the *Olividæ*, although its details of character are strikingly like that of *Dibaphus*. It seems to form, in a manner, a connecting link between the true *Olives* and the genus *Monoptygma* Lea (not of Adams, Sowerly, etc.) The folds are placed in a reverse order to those of *Mitra*.

I have before me specimens of *Dibaphus edentulus* and *Mauritia Barclayi*, the typical species of their respective genera. There is no possible room for doubt that *D. edentulus* is at least sometimes

supplied with mitra-like folds. My specimen has seven or eight, well developed. Consequently *Mauritia* is synonymous with *Dibaphus;* and it seems to me that the genus should be placed rather with the Mitres than with the Cones. The differences between the present genus and *Dibaphus* are small, and it is possible that the two should be placed side by side, although I strongly suspect that the resemblances are those of imitation rather than of true relationship.

Type *P. crassilabra.*

EULIMIDÆ.

IOPSIS, Gabb, pl. 11. fig. 6.

Shell eulimoid, polished, spire elevated, suture nearly obsolete, apex dextral; no umbilicus; columella slightly twisted and produced into a short lip-like canal, not emarginated.

The ivory-like structure, obsolete suture, and whole general appearance of this little shell prove its close relationship to *Eulima*, while its faintly twisted columella, extended to such a degree as to produce a short though not notched canal, distinguishes it from the other genera of the family. It resembles in form a miniature *Io*, from which circumstance the name is derived. I have noticed in some species of true *Eulima* a slight tendency to expansion of the lip in advance, on the columellar margin.

I. fusiformis.

STROMAIDÆ.

ORTHAULAX, Gabb, pl. 9, figs. 3, 4.

Shell rounded fusiform, canal moderate, straight and regularly tapering; adult shell enveloped over the whole spire by an extension of the inner lip; posterior canal fissure like, formed by the continued edge of the outer lip and running directly to the apex. Outer lip apparently sharp and simple; anterior notch oblique and broad.

The discovery of this genus fills an important break in the Rostellarias, uniting the true genus *Rostellaria*, with Conrad's fossil from *Calyptraphorus*. Unlike both of these genera the canal is not styliform, but robust and comparatively short, and its terminal notch is formed by an almost rectangular truncation of the anterior part of the outer lip. Like *Rostellaria* it has a straight posterior canal, prolonged, however, further than is common in that genus. The canal is similar in structure to that of *Calyptraphorus*, being formed by a squamose plate, but in the latter genus it curves over

backwards, behind the spire, which it ascends to about half its height, and then bends down to near the suture of the body whorl. Unlike the first, and like the second, of its congeners, it has the whole spire enveloped in a plate, which might more probably be described as a posterior extension of the body whorl, carrying the suture to the extreme apex. The lines of growth ran from the top of the spire to the anterior end of the shell. It carries none of the tubercles seen in *Calyptraphorus* and *Tessarolax*, and seems, unlike most of the other genera of the family, to have had a simple outer lip, neither thickened, digitate, nor notched.

O. inornatus.

DOLOPHANES, Gabb, pl. 11, fig. 7.

Shell elongate oval, spire elevated; with a minute, imperforate umbilicus; aperture semi-oval, inner lip acute, sinuous; anterior end of the aperture terminating in a short, not emarginate canal.

The first impression produced on looking at this little shell, is that it is probably a *Melania*. It is however undoubtedly marine, and it has a grouping of characters which ally it so closely to *Struthiolaria*, that I am convinced that it is a nearly related genus. Its spire is very like that of many of the species of the *Strombidæ*, and, in the details of its mouth, it differs only from *Struthiolaria* in having a thinly encrusted inner lip, an acute outer lip and an obsolete umbilicus, instead of the thickened margins and no umbilicus of that genus.

D. melanoides.

ACTÆONIDÆ.

ACTÆONIDEA, Gabb, pl. 11, fig. 8, 8 a.

Shell oval, elongate; aperture narrow, outer lip simple; columella slightly encrusted, bearing one large transverse fold in the middle and truncated in advance. Ornamented by revolving ribs.

This genus is an *Actæon* except that it has a single large fold on the middle of the inner lip, and the columella is truncated as in *Achatina*.

A. oryza, Gabb.

BULLIDÆ.

CYLICHNELLA, Gabb, pl. 10, fig. 2.

Shell sub-cylindrical, spire sunken; mouth narrow behind, widened or advance; columella with two folds.

This genus has the external form of *Cylichna*, but it has two distinct folds. The upper one is sharp and prominent like that of

Actæon, while the lower is more oblique and winds around the columella more like that of *Cylichna*.

C. bidentata. d'Orb.

Bulla bidentata, d'Orb. La Sagra's Cuba, pl. fig. 13, 16.

Utriculus bidentatus, Chemn. Mar. Conch., vol. 1, p. 388.

ACEPHALA.

CORBULIDÆ.

BOTHROCORBULA, Gabb, pl. 10, fig. 3, 3 a.

Shell like *Corbula* in every respect, except that it has a deep lunular pit under the beaks penetrating and almost passing through the hinge plate.

I have carefully examined almost all of the living and many fossil species of *Corbula*, and can find in none the slightest trace or rudiment of a lunuli; while this shell has it deeper than I have even seen in any other form, except in *Here* of the *Lucinus*.

B. viminca, Guppy, sp.

Corbula viminca, Guppy, Quart. Journ. Geol. Soc. Lond., v. 22, p. 293, pl. 18, fig. 11.

ANATINIDÆ.

NEÆROMYA, Gabb, pl. 10, fig. 4, 4 a, 4 b.

Shell thin, translucent, in shape approaching *Pholadomya*, ends closed; hinge with a prominent tooth in the right valve, articulating behind a smaller similar one in the left valve; an anterior and posterior lateral tooth in each valve. Mantle margin without sinus.

This genus, in its thin character and minute hinges, is closely allied to *Pholadomya*, *Thetis*, and *Neæra*, but differs from all in details of the hinge. *Neæra* has no cardinal tooth, but, in its place, a cartilage pit in each valve. It has a single posterior tooth, while this genus has the anterior equally well developed. In having corresponding teeth in both valves, it differs from *Thetis*, while its well specialized hinge and its closed ends distinguish it from *Pholadomya*.

N. quadrata, Gabb.